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ABSTRACT

An examination of recently published college-level textbooks give an indication of what is taught in introducing cultural, world, regional, and economic geography courses. The paper suggests that the ideas of anthropologist Don E. Dumond should be included in classroom discussions on population. Dumond draws parallels between an industrial society and the culture of early humanity. The argument is presented that the modern nuclear family is the prime unit with responsibility for children; and just as in primitive societies, children cannot make a contribution to the family at an early age. This gives families the motivation to limit the number of children, just as it did with early groups of hunters and gatherers. (NL)

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THOUGHTS ON POPULATION EDUCATION

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Thoughts on Population Education

Geographers are presented numerous opportunities to teach population in Introductory Cultural (or Human), World Regional, Economic Geography courses, and in Conservation or Environmental courses, among others. What is taught in such courses? One indication of what is taught can be gained by examining typical recent textbooks for such classes.

At the World Regional level, Paul Ward English and James A. Miller in WORLD REGIONAL GEOGRAPHY: A Question of Place (1989 ed.) discuss population growth in the context of the demographic transition and emphasizes that current population growth in the underdeveloped world is due to "death control". Richard H. Jackson and Lloyd E. Hudman in WORLD REGIONAL GEOGRAPHY: Issues for Today (1986 ed) begin their discussion of population with an emphasis on numbers noting that "on a yearly basis over 45,000 cows and 5500 acres of wheat would need to be added simply to provide additional population with a minimal food ration" (p. 65). They then trace population growth from the development of agriculture and note "the relative advantages and cost of children vary between industrial and less developed countries" (p. 71). And close the discussion with "The traditional methods for controlling population have been the war - famine - disease alternative of Malthus, or social restraints like later marriage, control of conception or destruction of the fetus before birth (p. 79)." In a third regional text James S. Fisher in GEOGRAPHY AND DEVELOPMENT: A World Regional Approach (1989) traces population growth from the Agricultural Revolution includes the demographic transformation, and Malthusian and Marxian theories of population growth.

Discussion of population in Economic Geography texts is not much different. For example Brian Berry, Edgar Conkling and Michael Ray's ECONOMIC GEOGRAPHY (1987 ed) presents population in a fashion much like that already mentioned, including the demographic transition, along with Malthusian and Marxian theories of population growth. They do quote Alexander Carr-Saunders who "suggested that the rate of population growth was determined by human perception of the densities that are economically desirable for a particular way of life" (p. 42), but don't elaborate.

Discussion of population in the Conservation or Environment texts is usually a bit more elaborate as for example in Susan Cutter etal EXPLOITATION, CONSERVATION, PRESERVATION (1985 ed.), as befits the subtitle, 'A Geographic Perspective on Natural Resource,' Use the chapter on population has an emphasis on spatial distribution. There is also a short history of population growth and of course brief mentions of Malthus and Marx. Also the student is presented with a discussion a demographic dynamics including Birth Rates, Fertility Rates and Age Structure. Notes "Family planning programs in the U.S. were first institutionalized in the form of birth control clinics in the 1920s. The first birth control clinics were established in New York City by Margaret Sanger. " (p. 90).

Another popular environmental text, G. Tyler Miller's LIVING IN THE ENVIRONMENT: An Introduction to Environmental Science (1988 ed.) is by a chemist, but devotes two chapters to population, one to population dynamics including the familiar demographic transition, birth rates, fertility rates and age-sex structure topics. The second chapter is devoted to population control and tells the student; "Effective family planning depends primarily on providing couples with information about and access to various forms of birth control which either prevent pregnancy or terminate pregnancy before birth." (p. 166).

A third environmental text, this one by a marine biologist, devotes four of 21 chapters to population. Samuel Luoma in INTRODUCTION TO ENVIRONMENTAL ISSUES (1984) provides a more complete discussion of population than any of the texts I have mentioned. In his discussion of population history he includes some of the ideas initially presented by Donald E. Dumond in his 1975 article in SCIENCE entitled "The limitation of human population: A natural history. Dumond suggested that humans have always practiced population control, even as hunters and gatherers. Luoma, however, chooses to emphasize the Malthusian disease and famine as population factors in preindustrial agrarian societies rather than continue with the line of thought developed by Dumond.

It is in the omission of the ideas first suggested by Dumond and at least partially supported by other research that I believe our geography texts have let us down. I would like to share Dumond's ideas with you and suggest they should be included in your discussion of population.

Dumond, an anthropologist, argues that early humanity should not be viewed as population producing large numbers of young, only to have them die of disease or starvation as their numbers exceed their environments carrying capacity. Rather, it was one in which natality was in approximate balance with mortality from natural and routine external causes, in which the stable population was of a size well within the normal carrying capacity of the region. Using numerous anthropological studies Dumond constructs a picture of preagricultural humans that suggests that while desiring to reproduce, there were strong reasons not to reproduce at a biologically possible level, and that these societies developed population limiting cultural elements. The basic argument is that in a hunting and gathering society or a similarly mobile group a child would be a burden for its mother, she could not be expected to carry more than one and her own possessions. Also, children in such societies could not eat the foods the parents ate so they are nursed longer,

maybe as much as three years. And finally since hunters and gatherers lived in small groups the 'costs' of raising a child fell much more directly on its parents, a further incentive to limit the number. With such motivation, it is not surprising that their are numerous examples of mechanisms adopted by societies to space births, including postpartum sexual abstinence for significant time periods. It is also noted that induced abortion is well-nigh universal, though maybe not a systematic practice. Infanticide of course was practiced and the long period of lactation may have been a factor. Dumond demonstrates that the population stability of pre-agricultural societies was the result of conscious control of births.

With the advent of agriculture the values and pressures changed. There was no longer the limitation imposed by mobility and the need to transport infants. Also, with the improved food supply, people began to live in larger groups so that the 'costs' of raising an infant was shared by the larger group and not solely born by the biological parents. It is also almost a truism in agricultural societies, that the more children, the better. More children ment more labor, and thus economic benefits for the parents. And finally with agriculture came the larger kin group organization, and the larger your group, the better. Thus, for the preindustrial agricultural society, the motivation was for as many children as possible, and society responded with natality supporting mechanisms.

Certainly, as human began to live in large groups, disease may have become a greater problem than it was with the hunters and gatherers, and as the industrial age began, the pronatal values were beginning to present problems, and societies and people were groping for ways to cope. These are well illustrated in an article by William L. Langer in the February 1972 issue of SCIENTIFIC AMERICAN entitled "Checks on Population Growth: 1750-1850". Langer notes that in northern Europe, at least marriage, and thus the right to

reproduce, was limited during this time period by a number of mechanisms; that marriage, when it did occur, was at a later age, and that child abandonment and infanticide were not unknown.

Dumond goes on to argue that in an industrial society, the nuclear family again becomes the prime unit responsible for a child and that in an industrial society the child can not make a contribution to the family at an early age as in the agricultural society, and thus, as in the hunter and gatherer era, the motivation is again to limit the number of children. And despite overt cultural elements to the contrary, most urban-industrial societies are of low natural growth.

If Dumond's interpretation is correct, and I believe it is, humans have always practiced population control in a fashion that seem to be most advantageous for the parents. Or as Dumond concludes: "In most cases where growth of population has occurred, it has been both recognized and tolerated. The modern growth of population will be slowed permanently only to the extent that in the judgment of each individual, whatever his background, extra children are worth less than they will cost in time, in effort, in money, in emotion - or in the threat that is posed by their very existence" (p. 720).

It is these ideas that should be included in our text books, and in our discussion of population. If for no other reason than it presents a much more positive image of human abilities than the "peasants are breding like rabbits" image of the Malthusian explanation.

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